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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,890	03/08/2004	Rinji Sugino	AF1216	2103

53104 7590 09/22/2005

THE CAVANAGH LAW FIRM
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EXAMINER	
TRAN, MAI HUONG C	

ART UNIT	PAPER NUMBER
2818	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/795,890	SUGINO ET AL.
	Examiner	Art Unit
	Mai-Huong Tran	2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 August 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-6, and 8-16 are rejected under 35 U. S. C. § 102 (b) as being anticipated by U.S. Patent No. 5,182,225 to Matthews.

Regarding to claim 1, Matthews discloses a method for manufacturing a semiconductor component, comprising providing a semiconductor substrate 10 having a major surface; forming first and second surface features over the major surface (fig. 15A); forming a first polysilicon layer 58 over the first and second surface features; and redistributing the first polysilicon layer in at least the region between the first and second surface features (col. 13, lines 40-68, cols. 14-15, col. 16, lines 1-34, and figs. 11A, 15A, 15B, 14A, 14B, 15A, 15B).

Regarding to claim 2, the method wherein redistributing the first polysilicon layer comprises annealing the first polysilicon layer (col. 15, lines 3-5).

Regarding to claim 4, the method wherein annealing the first polysilicon layer includes heating the first polysilicon layer to a temperature ranging between approximately 750 degrees Celsius and approximately 1,100 degrees Celsius (col. 15, lines 3-4).

Regarding to claim 5, the method further including forming a second polysilicon layer over the first polysilicon layer (col. 18, lines 43-57).

Regarding to claim 6, the method further including redistributing the second polysilicon layer (col. 18, lines 43-57).

Regarding to claim 8, the method wherein annealing the second polysilicon layer includes heating the second polysilicon layer to a temperature of at least 750 degrees Celsius (col. 18, lines 52-53).

Regarding to claim 9, Matthews discloses a method for manufacturing a semiconductor component, comprising providing a semiconductor substrate 10 having a major surface; forming a first dielectric material 28 on the major surface; forming first and second conductors 33, 34, 35, 36 over first and second portions of the first dielectric material 28, the first and second conductors having a gap therebetween 38; forming a second dielectric material 32 over the first and second conductors; forming a first layer of

polysilicon 58 over the first and second conductors; and repositioning atoms of the first layer of polysilicon (col. 7, lines 55-62, cols. 10-16, and figs. 8A, 8B, 11A, 15A, 15B, 14A, 14B, 15A, 15B.

Regarding to claim 10, the method wherein forming the first and second conductors comprises forming a second layer of polysilicon over the first dielectric material; and patterning the second layer of polysilicon over the first dielectric material to form the first and second conductors (col. 18, lines 43-57).

Regarding to claim 11, the method wherein forming the first layer of polysilicon over the first and second conductors comprises forming a third dielectric material 57 on the first and second conductors and forming the first layer of polysilicon on the third dielectric material (col. 12, lines 57-58).

Regarding to claim 12, the method wherein repositioning atoms of the first layer of polysilicon comprises annealing the first layer of polysilicon (col. 15, lines 3-4).

Regarding to claim 13, the method wherein repositioning atoms of the first layer of polysilicon comprises heating the first layer of polysilicon to a temperature of at least 750 degrees Celsius (col. 15, lines 3-4).

Regarding to claim 14, the method further including forming a second layer of polysilicon over the first layer of polysilicon (col. 18, lines 43-57).

Regarding to claim 15, the method further including annealing the second layer of polysilicon (col. 18, lines 52-53).

Regarding to claim 16, the method wherein forming the first layer of polysilicon includes forming the first layer of polysilicon to have a thickness ranging between a monolayer of polysilicon and about 300 Angstroms (col. 10, lines 37-39).

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 7, and 17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 5,182,225 to Matthews in view of the remark.

Regarding to claim 3, Matthews discloses the claimed invention except for the method wherein annealing the first polysilicon layer comprises annealing the first polysilicon in an ambient comprising hydrogen.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the method wherein annealing the first polysilicon layer comprises annealing the first polysilicon in an ambient comprising hydrogen since it was known in the art that annealing the first polysilicon in an ambient comprising hydrogen.

Regarding to claim 7, the method wherein redistributing the second polysilicon layer includes annealing the second polysilicon layer in a hydrogen ambient.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the method wherein redistributing the second polysilicon layer includes annealing the second polysilicon layer in a hydrogen ambient since it was known in the art that annealing the second polysilicon layer in a hydrogen ambient.

Regarding to claim 17, the method wherein repositioning atoms of the first layer of polysilicon includes repositioning the atoms in an ambient comprising hydrogen.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the method wherein repositioning atoms of the first layer of polysilicon includes repositioning the atoms in an ambient comprising hydrogen.

Conclusion

Any inquiry concerning this communication on earlier communications from the examiner should be directed to Mai-Huong Tran, (571) 272-1796. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM. The examiner's supervisor, David Nelms can be reached on (571) 272-1787.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mai-Huong Tran